ABSTRACT OF THE DISCLOSURE

A method for correcting a proximity effect applied to a dose of an electron beam exposure, includes classifying an underlying pattern of a level underlying a thin film layer; dividing a

5 processing pattern to be transferred on the thin film layer into a first pattern overlapping with the underlying pattern and a second pattern which does not overlap with the underlying pattern according to the classified underlying pattern: calculating a pattern area density for the first and second patterns in a unit region; and

10 calculating a corrected dose for the processing pattern according to the pattern area density.